

EXHIBIT 12



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/954,755	09/30/2004	Jialin Zou	LUCW:0015 Kong 11-6	4332
48671	7590	11/13/2009		
FLETCHER YODER (LUCENT)			EXAMINER	
P.O. BOX 692289			LIM, STEVEN	
HOUSTON, TX 77069				
			ART UNIT	PAPER NUMBER
			2617	
			MAIL DATE	DELIVERY MODE
			11/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/954,755

Applicant(s)

ZOU ET AL.

Examiner

STEVEN LIM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14, 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. In view of the appeal brief filed on 8/11/2009, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617.

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Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims, 1, 3, 4, 8-10, 12, 14, 16, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Duan et al. (US 20050113106).

4. Regarding Claims 1 and 10, Duan et al. discloses a method and system comprising: generating quality metrics from a decoding process for a received channel quality indicator (CQI), wherein the quality metrics comprise short-term soft decision quality metrics and long-term soft decision quality metrics that are associated with a quality of the received CQI (Paragraphs 53-55), wherein the long-term soft decision quality metrics are generated by filtering or accumulating frame based quality metrics over a plurality of frames (Paragraphs 4 and 61-62); comparing at least one of the quality metrics to a quality setting (Paragraph 29); and determining whether to dynamically adjust a CQI channel configuration based on the comparison (Paragraph 29).

5. Regarding Claim 3, Duan et al. further discloses the CQI channel configuration comprises a reverse link outer loop power control setting (Paragraph 29), and the

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comparison comprises comparing one of the short-term quality metrics to the quality setting (Paragraphs 29 and 61).

6. Regarding Claim 5, Duan et al. further discloses generating the short-term quality metrics by accumulating a plurality of quality information from the decoding process over a CQI frame (Paragraphs 53-55 and 61).

7. Regarding Claim 8, Duan et al. further discloses the method is performed at a base station in a wireless communications system (power controlled by radio base stations, Paragraphs 24 and 29).

8. Regarding Claim 9, Duan et al. further discloses transmitting an adjustment for the CQI channel configuration to a wireless unit (Paragraph 29).

9. Regarding Claim 12, Duan et al. further discloses the CQI channel configuration comprises a reverse link outer loop power control setting (Paragraph 29), and the comparison comprises comparing one of the short-term quality metrics to the quality setting (Paragraphs 29 and 61).

10. Regarding Claim 14, Duan et al. further discloses the means for generating quality metrics comprising a means for generating the short-term quality metrics by accumulating a plurality of quality information from the decoding process over a CQI frame (Paragraphs 53-55 and 61).

11. Regarding Claim 16, Duan et al. further discloses the method is performed at a base station in a wireless communications system (power controlled by radio base stations, Paragraphs 24 and 29).

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12. Regarding Claim 20, Duan et al. further discloses generating quality metrics comprises generating long-term metrics by accumulating the plurality of quality metrics over a period of more than one frame (Paragraphs 4, 53-55 and 61).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 2, 7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duan et al. (US 20050113106) in view of Gholmie et al. (US 20030129989).

16. Regarding Claim 2, Duan et al. further discloses the CQI channel configuration comprises a R-CQICH setting (Paragraphs 29 and 61) and the comparison comprises comparing one of the long-term quality metrics to the quality setting (Paragraphs 53-55),

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however Duan et al. fails to disclose a mode setting of a full mode or a differential mode.

17. In an analogous art, Gholmieh et al. discloses using thus setting full and differential modes for CQI (Paragraph 31), which enables a system to conserve bandwidth by using a differential mode thereby sending less data.

18. It would have been obvious to one having ordinary skill in the art at the time of invention was made to set a full or differential mode in order to allow the system to conserve bandwidth by using a differential mode thereby sending less data.

19. Regarding Claim 7 Duan et al. further discloses the CQI channel configuration comprises a R-CQICH setting (Paragraphs 29 and 61) and the comparison comprises comparing one of the long-term quality metrics to the quality setting (Paragraphs 53-55), however Duan et al. fails to disclose generating a plurality of erasures for differential reports based on a CQI differential bit decision metric.

20. In an analogous art, Gholmieh et al. discloses generating a plurality of erasures for differential reports based on a CQI differential bit decision metric (negative increment value of most recently transmitted full CQI value become current CQI, Paragraph 19), which enables a system to simplify the monitoring of data.

21. It would have been obvious to one having ordinary skill in the art at the time of invention was made to generate a plurality of erasures for differential reports in order to allow the system simplify the monitoring of data.

22. Regarding Claim 11, Duan et al. further discloses the CQI channel configuration comprises a R-CQICH setting (Paragraphs 29 and 61) and the comparison comprises

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comparing one of the long-term quality metrics to the quality setting (Paragraphs 53-55), however Duan et al. fails to disclose a mode setting of a full mode or a differential mode.

23. In an analogous art, Gholmieh et al. discloses using thus setting full and differential modes for CQI (Paragraph 31), which enables a system to conserve bandwidth by using a differential mode thereby sending less data.

24. It would have been obvious to one having ordinary skill in the art at the time of invention was made to set a full or differential mode in order to allow the system to conserve bandwidth by using a differential mode thereby sending less data.

25. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duan et al. (US 20050113106) in view of Yun et al. (US 20030206541).

26. Regarding Claim 4, Duan et al. further discloses comparing one of the long-term quality metrics to the quality setting (Paragraphs 53-55) and CQI channel configuration (Paragraph 29), however Duan et al. fails to disclose the CQI channel configuration comprises a repetition factor.

27. In an analogous art, Yun et al. discloses a CQI channel configuration including a repetition factor (Paragraph 46), which enables an accurate detection of the switching intention of a mobile station (Paragraph 53).

28. It would have also been obvious to one having ordinary skill in the art at the time of invention was made to adjust the repetition factor in order to allow for an accurate detection of the switching intention of the mobile station (Paragraph 53).

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29. Regarding Claim 13, Duan et al. further discloses comparing one of the long-term quality metrics to the quality setting (Paragraphs 53-55) and CQI channel configuration (Paragraph 29), however Duan et al. fails to disclose the CQI channel configuration comprises a repetition factor.

30. In an analogous art, Yun et al. discloses a CQI channel configuration including a repetition factor (Paragraph 46), which enables an accurate detection of the switching intention of a mobile station (Paragraph 53).

31. It would have also been obvious to one having ordinary skill in the art at the time of invention was made to adjust the repetition factor in order to allow for an accurate detection of the switching intention of the mobile station (Paragraph 53).

32. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duan et al. (US 20050113106) in view of Gholmieh et al. (US 20030129989) and further in view of Yun et al. (US 20030206541).

33. Regarding Claim 17, Duan et al. discloses a method comprising: generating quality soft decision metrics in a decoding process associated with a quality of the received channel quality indicator (CQI) (Paragraphs 53-55), wherein the soft decision metrics are generated using metrics accumulated over a frame (Paragraphs 53-55, and 61); comparing one of quality soft decision metrics to a threshold quality setting (Paragraph 29); and determining whether to dynamically adjust at least one of a mode setting (increasing and decreasing power are mode settings, Paragraph 29), including a reverse link outer loop power control setting (Paragraph 29 and 61), however Duan et

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al. fails to disclose the metrics are erasure metrics and dynamically adjusting a repetition factor based on the comparison.

34. In an analogous art, Gholmieh et al. discloses sending CQI information as erasures (negative increment value of most recently transmitted full CQI value become current CQI, Paragraph 19), which enables a conservation of bandwidth by sending less data.

35. In an analogous art, Yun et al. discloses a CQI channel configuration including a repetition factor (Paragraph 46), which enables an accurate detection of the switching intention of a mobile station (Paragraph 53).

36. It would have been obvious to one having ordinary skill in the art at the time of invention was made to use erasure metrics in order to conserve bandwidth by sending differential data instead of the full data.

37. It would have also been obvious to one having ordinary skill in the art at the time of invention was made to adjust the repetition factor in order to allow for an accurate detection of the switching intention of the mobile station (Paragraph 53).

38. Regarding Claim 18, Duan et al. discloses using CQI information, (Paragraphs 53-55) and setting a mode (increasing and decreasing power are mode settings, Paragraph 29), however Duan et al. fails to disclose a mode setting comprises a full mode or a differential mode setting.

39. In an analogous art, Gholmieh et al. discloses using full and differential modes for CQI (Paragraph 31), which enables a conservation of bandwidth by sending less data.

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40. It would have been obvious to one having ordinary skill in the art at the time of invention was made to have a mode setting comprise full or differential mode setting to allow the system to conserve bandwidth for other uses when in a differential mode.

41. Regarding Claim 19, Duan et al. further discloses transmitting an adjustment to a wireless unit if the determination is to dynamically adjust the reverse link outer loop power control setting (Paragraph 29).

Response to Arguments

42. Applicant's arguments with respect to claims 1-5, 7-14, 16-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN LIM whose telephone number is (571)270-1210. The examiner can normally be reached on Mon-Thurs 9:00am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. L./

Examiner, Art Unit 2617

/Lester Kincaid/

Supervisory Patent Examiner, Art Unit 2617